

Rural dams held up well under floods' battering

Southwestern Utah: Some will require added maintenance, but the old designs came through

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Floodwaters that tore through southwestern Utah last week turned the spillways of dams built half a century ago into frothing rapids that would make a river runner drool - but the structures survived with high marks.

Engineers have been concerned that the high waters that caused widespread flooding throughout southwest Utah affected the integrity of Washington County's rubble-and-masonry dams.

"In general, they performed as designed," State Engineer Jerry Olds said Thursday. "Undoubtedly there will be some maintenance issues, and we're looking at meeting with [dam owners] to see if there was any significant damage, but we don't think there are any major problems."

Of particular concern were dams impounding the upper and lower Enterprise reservoirs.

Lee Bracken a shareholder in the canal company that owns and maintains those two dams, said he joined state inspectors earlier this week while water spilled over the lower dam faces.

"They're solid," said Bracken on Thursday, adding that a lack of vegetation in the drainage after last summer's wildfires caused the reservoirs to fill faster than normal.

He said some maintenance must be done on the lower reservoir, but that is not unusual after handling the surge of water that sent Enterprise residents piling sandbags on Jan. 11 as the overflowing spillway filled Spring and Shoal creeks.

Bracken praised the skills of the pioneers who built the structures above the town.

"The dams are a real testament to the ingenuity and design ability of those rough, old pioneers who built the structures so that they survived a 100-year flood," said Bracken.

Bracken said cost figures for making repairs to erosion damage at spillways and roads are being compiled. The reservoir owner, Enterprise Irrigation and Canal Co., will apply for a low-interest loan through the Federal Emergency Management Agency.

Matt Lindon, a dam-safety hydrological engineer with the federal Natural Resources Conservation Service (NRCS), said Thursday that he toured the dam sites and, in addition to the Enterprise dams, Gunlock and Baker reservoirs also held up well.

"They performed as advertised," said Lindon.

He said there are about 649 significant dams in Utah, made mainly of earth. Some 192 are in high-hazard areas, which means if they burst, lives probably would be lost.

Upgrading dams and their spillways is a constant process, said Lindon.

To pay for the inspection and upgrade work, the Legislature now meeting in Salt Lake City will consider earmarking \$4 million for a state program. In addition, Congress is expected to approve \$350 million for the Emergency Watershed Protection program.

NRCS area conservationist Vane Campbell said he is working with Utah's congressional delegation to free up funds for enhancement and repairs to banks along the Santa Clara and Virgin rivers.

Agency inspectors were in the town of Virgin on Thursday to assess damage to Virgin River stream banks east of Zion National Park.

Most southwest Utah rivers will get attention.

Blake Walbeck, a resource-conservation specialist, said as soon as money is released, vertical banks carved out of the area's sandy soil by floodwaters will be sloped, then blanketed with a textile material and covered with various sizes of rocks to help reduce erosion from future floods.

"There's still a lot of snow in the mountains," said Walbeck.

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